



U.S. AIR FORCE

Contagious Care Management



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Mission Capability Update

DRAFT FFGK8

Provides personnel and equipment for bare base operations in support of Special Operations Forces. Provides medical force protection insight of facilities at forward operating locations, particularly food, waste, water treatment, billeting, medical and sanitation facilities. Performs food and water source selection/evaluation, field hygiene/sanitation, vector/pest risk assessment, and initial occupational/environmental health site assessment for SOF personnel. **Performs specialized small team/aircrew patient decontamination in far forward environments. Performs limited nuclear, biological, and chemical (NBC) hazard risk assessments.** Adds Physician Extender support for clinical medicine activities as well as medical intelligence, medical administration, and operational planning, dependent on substituted AFSCs. The following substitutions are authorized: AFSC 4N051 with 041A3, 4A051, 4B051, 4E051, AFSC 042G3 with SEI 496 qualified 4N071, AFSC 4B071 with 043E3, and AFSC 4E071 with 043H3. UTC can deploy for 30 days without re-supply. Deploys to MOPR

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Backup Slides



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Treatment and Transport of CBRNE/TIC/TIM/DEW Exposed Personnel

<u>Capability Description</u>
Ref: AFSOC MAP 2033, Cap Shortfall #268
• Treatment (remote) of exposed personnel
• Transport personnel rapidly <1 min
• Multiple (20) casualties at one time onto Fixed/Vertical takeoff aircraft
• Eliminate exposure to personnel and A/C
<u>Cooperative Shelters and Pre-OSRSP2</u>
• <u>Condition</u> (Red circles)
• <u>Download interface must be seamless (OA)</u> (Red circles)
• <u>Detect to Warn for barrier breach (COA 1 - OOTL Initiative)</u> (Yellow circle)
• <u>COA 3 (COA 2 + MF Initiatives)</u> (Green circle)

<u>Current Status/Risk</u>
• OSM in process of purchasing 10 Man-Cages and 5 Casualty Care Systems
• 05 UFR submitted for \$50K for 10 CCS
• Current Risk - 4 (Catastrophic/seldom)
• Personnel at Risk PAR - 20 patients
• Health Impact - 8 (severe, disabling)
<u>MFACs/Issues</u>
• TTP Probability Issues
• Logistics. Who will maintain?
• Equipment disposal and decontamination
• COA if breach detected?



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Multiple Casualty Isolation/Transport/Treatment

nt

- Chemical Protective Barrier (Chem-Barrier) to contain chemical agent during transport of contaminated personnel and small equipment
- The personnel or small equipment are placed inside the Chem-Barrier. The Chem Barrier Door is closed and secured
- The Chem Barrier is designed to absorb liquid agents, thereby eliminating the contact hazard to personnel and equipment outside of the Chem Barrier. The vapors are contained in the porous structure of the Chem Barrier's fibers

The Chem Barrier consists of:
an air permeable tent
constructed of carbon cloth,
butyl coated fabric and
supports. The carbon cloth
has been modified to enhance
its durability, yet still retain
the permeability needed for

the personnel inside to

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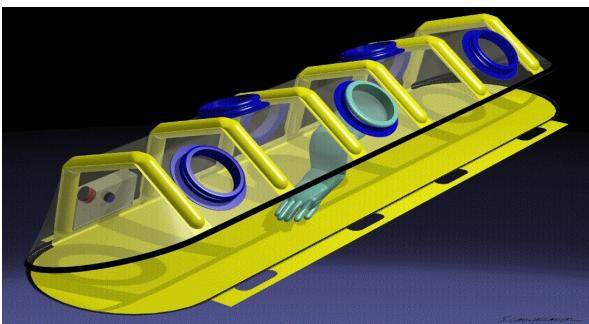
Single Casualty Isolation/Transport/Treatment



CASEVAC TRANSLOAD



You are here





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CCS System Overview

- One-time use isolation unit to transport, hold, or protect casualties from contamination or cross-contamination.
- Provides protection from both chemical and biological warfare agents utilizing multiple reactive fabric laminates.
- Materials provide protection from contamination for 24 hours.
- Interior fabric is made from same materials as outer fabric. Biological and chemical agents on the interior will also be absorbed for patient protection.
- One Medical Interface Bulkhead (MIB) containing two IV ports and one oxygen hose port.
- Filtered air is provided by two Micronel powered air purifying blower units using two standard NATO thread filter canisters and lithium batteries. Each blower provides four cubic feet per minute of air flow. Air flow can be altered to produce positive or negative air flow.



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Photos - Side View

Right Side View





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Photos - End Views

Head End



Foot End

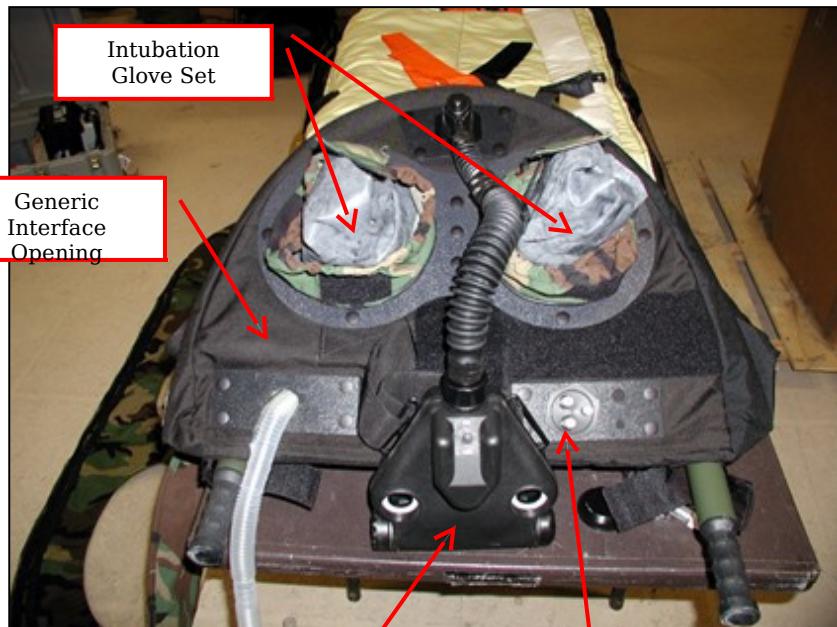




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Photos - Head End

Exterior - Head End



Interior - Head End





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Photos - Head End

Exterior - Left Side of Head End



Exterior - Right Side of Head End

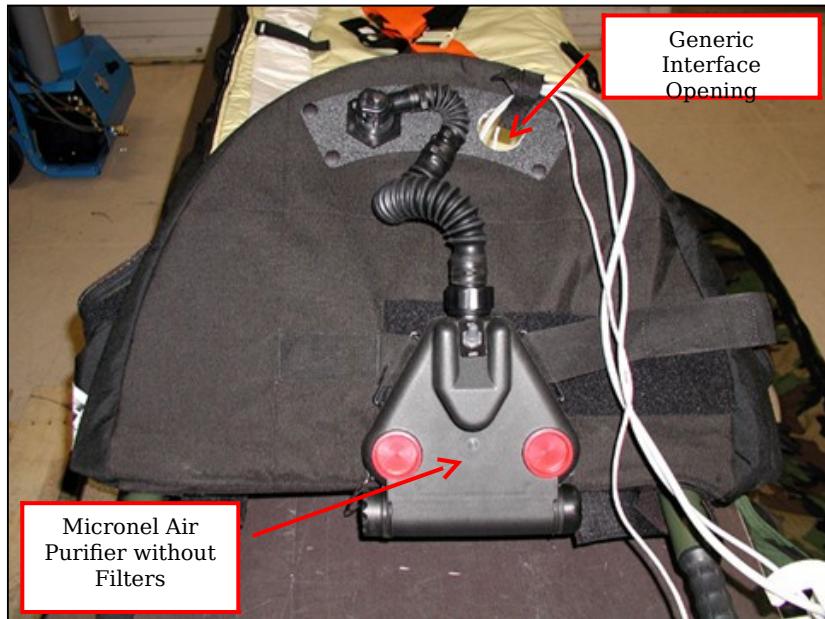




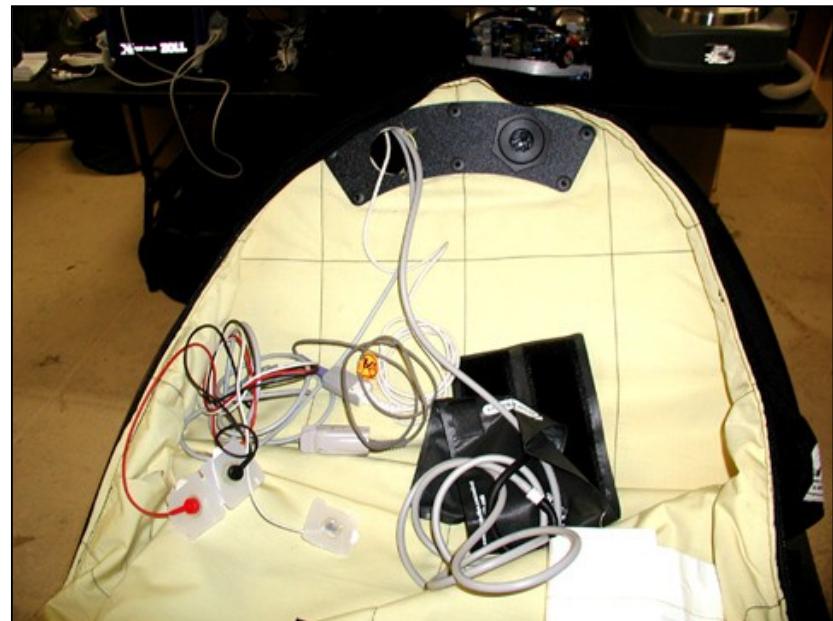
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Photos - Foot End

Exterior - Foot End



Interior - Foot End





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Photos - Foot End

Exterior - Left Side of Foot End



Exterior - Right Side of Foot End





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Photos - Close-Ups

**Medical Equipment Interfaces at
Head End**



**Medical Equipment Interfaces at
Foot End**





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Photos - Waist Section

Waist Section - Left Side





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SOCOM Modifications

- Four sets of glove ports. One each located at head (for intubation), chest, waist, and feet.
- Light tan inner liner for faster identification of bleeders.
- Increased length and height for large framed patients.
- Woodland camouflage exterior.
- Disposable tear-off patient drape for protection of CCS and provider while loading contaminated patient.
- An extra generic equipment interface opening at head and foot. (Openings must be sealed with epoxy if used)



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Recommended Changes

- Add accessory pockets to interior foot and head walls to store tubing, leads, and M-295/M-291 decontamination kits.
- Add Velcro straps to exterior foot and head walls to tie down tubing and leads.
- Create custom interface for ventilation tubing.
- Create custom interface for Propaq leads.
- Add another generic equipment interface for future communication system connections.



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SOF FAWG Slides



Global Situational Awareness Tool (GSAT)

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Capability Description

- Ref: AFSOC MAP 2033, Shortfall #275, 276
- Provide operational medical planners and civil engineers with a tool that can process and analyze existing databases and real-time data to assess ESOH risks.
- Assessment provides medical surveillance of war fighter exposures in-theater, relevant vaccines information, and prophylactic protocols that protect the health and safety of the war fighter

or follow-on technical assistance in hazard mitigation

COAs	Short	FYDP1	FYDP2	FYDP3
COA 1 (Current COA)	●	●	●	●
COA 2 (COA 1 + OTL Initiatives)	●	●	●	●
COA 3 (COA 2 + MF Initiatives)	●	●	●	●

Current Status/Risk

- SAIC contract - \$500K (disease layer, SIPR)
- SAIC contract - \$1M (Radiological Layer)
- Current Risk - 6 (Critical/Likely)
 - Personnel at Risk PAR - 90%
 - Health Impact - 8 (severe, disabling)
 - Probability - Seldom

LIMFACs/Issues

- Access to data and O&M cost to maintain
- Interface to other platforms (GEMS, DOEHRS, TOMS)



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Tell GSAT what your missions are...



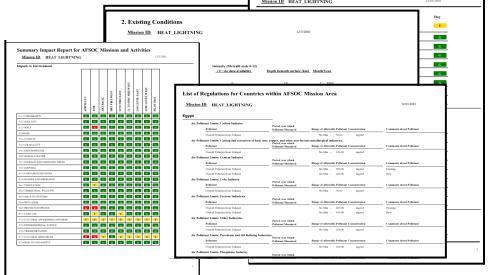
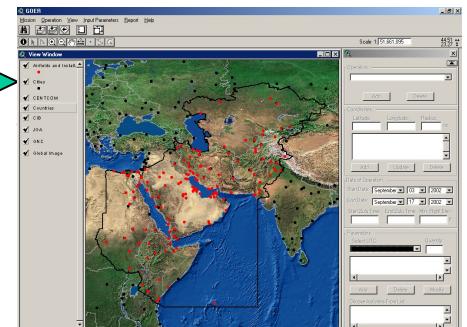
GSAT





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GSAT will tell you the hazards of doing it





Deployed Environmental Monitoring and Hazard Mitigation

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Capability Description

- Ref: AFSOC MAP 2033, Cap Shortfall #284
- Robust, lean, agile field detection GPS locate, identification, and monitoring
 - TIC/TIM/CBRN in air/soil/water/food
- Ability to characterize hazards and provide user initial COA for hazard mitigation

COA Analysis Sh conduced while DPAOR

- Ability to provide baseline for follow-on technical assistance in hazard mitigation

COA 2

(COA 1 + OTL Initiatives)

COA 3

(COA 2 + MF Initiatives)

Current Status/Risk

- Updating allowance std for FFGK8 to reflect new and improved capabilities
 - 05 UFR submitted for \$320K
 - Current Risk - 4 (Catastrophic/seldom)
 - Personnel at Risk PAR - 90%
 - Health Impact - 8 (severe, disabling)
 - Probability - Seldom

LIMFACs/Issues

- Equipment integration requires multiple contractors working together



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Env Monitoring & Hazard Mitigation

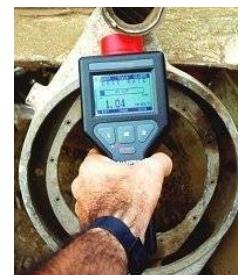
- Real-time device; Analyze liquids, solids, gases; user friendly, easy to maintain, Light portable, easily deployed into a far-forward environment

TODAY



HHA Kit

Short Term 1-2 yrs



1-2 FYDPs



Sensing/
Detecting
Analyzing/
Reporting
Acting





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Process - Determine Capability Risk



		Probability				
		Frequent	Likely	Occasional	Seldom	Unlikely
Severity	Catastrophic	10	8	6	4	3
	Critical	8	6	4	3	2
	Moderate	6	4	3	2	1
	Negligible	3	3	2	1	1



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Risk Definitions

(*AFPAM 90-902, Operational Risk Management Tools*)

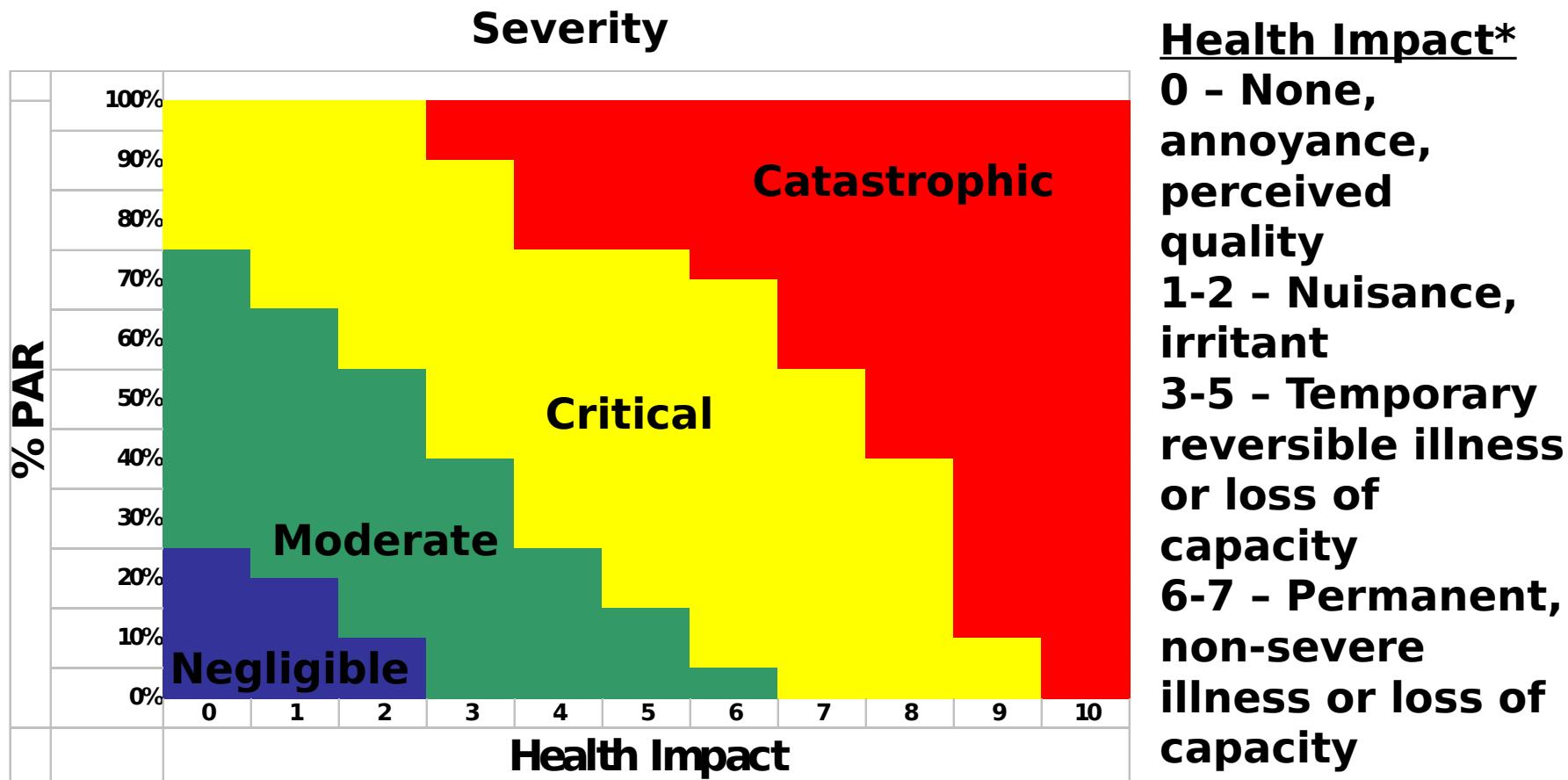
- Probability of needing capability in future
 - Frequent: Continuously experienced (up to weekly)
 - Likely: Occurs regularly (weekly to annually)
 - Occasional: Occurs sporadically (2-5 times in 10 years)
 - Seldom: Rarely occurs (probable in 20 years)
 - Unlikely: Probably will not occur within 3 FYDP
- Severity if capability not improved
 - Health impact
 - Population at risk



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Risk Definitions (Cont.)

(AFPAM 90-902, Operational Risk Management Tools)



* Adapted from AFI 91-301, Attachment 1



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Impact Based Upon Available Capability & Risk

<u>Capability</u>	<u>Current</u>	<u>FYDP</u>	<u>FYDP2</u>	<u>FYDP3</u>
Capability 1	See Example	R	R	R
Capability 2	R	R	Y	Y
Capability 3	R	Y	Y	G
Capability 4	Y	Y	Y	G
Capability 5	Y	Y	G	G
Capability N	G	G	G	G